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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,236

10/17/2005

Philippe Hocquet

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SCHLUMBERGER OILFIELD SERVICES  
200 GILLINGHAM LANE  
MD 200-9  
SUGAR LAND, TX 77478

EXAMINER

FULLER, ROBERT EDWARD

ART UNIT

PAPER NUMBER

3676

MAIL DATE

DELIVERY MODE

02/03/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/540,236	<b>Applicant(s)</b> HOCQUET ET AL.	
	<b>Examiner</b> ROBERT E. FULLER	<b>Art Unit</b> 3676	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 December 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,9-11,14-17,19 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,9-11,14-17,19 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 17, 2009 has been entered.

2. Applicant's submission has been carefully considered. Examiner maintains the rejection set forth in the previous Office Action. Note that examiner has modified the rejection of claim 19, as the previous rejection was in error (see also the Response to Arguments section of this Action).

3. Claims 1-5, 9-11, 14-17, 19, and 23 are pending.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5, 9-11, 14-17, 19, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by loanesian et al. (US 3,728,040).

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With regard to claim 1, loanesian discloses a drilling apparatus comprising: a turbine (1) being provided with a turbine shaft (7), a hydraulic braking device (15—see also Fig. 7) configured to operate with the turbine wherein the hydraulic braking device comprises at least one body (11, 13) connected to said turbine shaft, and wherein when said hydraulic braking device is immersed in a fluid medium, rotation of the turbine shaft about its axis causes a movement of the said at least one body with respect to the said fluid medium, this movement generating a resisting torque that is a function of the square of the rotation speed of the turbine shaft with respect to the said fluid medium providing a quadratic relation; and wherein the construction of the braking device is such that a braking effect is obtained when the rotation speed of the turbine exceeds a predetermined threshold value and the braking effect is not obtained when under the predetermined threshold value as a result of the quadratic relation (column 3, lines 32-41; column 4, lines 53-66).

With regard to claims 2-5, loanesian discloses a braking shaft (the lower half of shaft 7) coupled to the said turbine shaft (the upper half of shaft 7), wherein the body is connected to the braking shaft. The shafts are coaxial, rotate together, and are combined into a single shaft.

With regard to claim 9, the body rotates when the turbine shaft rotates.

With regard to claims 10 and 11, the body is connected to the shaft via a connecting means comprising an anchor zone.

With regard to claims 14-17, the bodies are spaced in a regular manner, have the same axial positions, are identical, and have the same dimensions.

With regard to claim 19, the braking device (15) is downstream of the turbine (1).

With regard to claim 23, loanesian discloses a turbine (1) comprising: a turbine shaft (7) and; a hydraulic braking device (15—see Also Fig. 7) comprising at least one body (11, 13) connected to said turbine shaft (4); wherein when said hydraulic braking device is immersed in a fluid medium, rotation of the turbine shaft about its axis causes a movement of the said at least one body with respect to the said fluid medium, this movement generating a resisting torque that is a function of the square of the rotation speed of the turbine shaft with respect to the said fluid medium. providing a quadratic relation; and wherein the construction of the braking device is such that a braking effect is obtained when the rotation speed of the turbine exceeds a predetermined threshold value and the braking effect is not obtained when under the predetermined threshold value as a result of the quadratic relation (column 3, lines 32-41; column 4, lines 53-66).

### ***Response to Arguments***

6. Applicant's arguments filed December 17, 2009 have been fully considered but they are not persuasive. Applicant has argued that loanesian fails to disclose a relationship in which a braking effect is only obtained above a certain threshold value of the rotation speed of the rotor shaft. Examiner respectfully traverses this argument. There is no structural difference between the braking device in Fig. 7 of loanesian and

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those of Applicant's invention. The blades are aligned along the longitudinal axis of the rotor shaft, just as those shown in Fig. 1 of applicant's drawings. Since the two devices have the same structure, it follows that this quadratic relationship must also be true of both devices.

Furthermore, with respect to claim 19, examiner's rejection in the last Office Action was in error. Ioanesian does in fact disclose the braking device (15) to be downstream of the turbine (1). Therefore, claim 19 should have been rejected under 35 U.S.C. 102, rather than 35 U.S.C. 103.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT E. FULLER whose telephone number is (571)272-0419. The examiner can normally be reached on Monday thru Friday from 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shane Bomar/  
Primary Examiner, Art Unit 3676

01/27/2010  
REF